

AMENDMENT UNDER 37 CFR §1.111
Application No. 10/630,903

Docket No. Q76757

AMENDMENTS TO THE DRAWINGS

Applicants respectfully submits revised Figures 7A and 7B.

Attachment: 1 Replacement Sheet

REMARKS

Formal Matters

Applicants thank the Examiner for considering the references submitted with the Information Disclosure Statements filed on July 31, 2003, August 29, 2006, and September 25, 2006.

Applicants respectfully request the Examiner to acknowledge the claim to foreign priority, filed July 31, 2003, and receipt of a certified copy of the priority document, filed on November 10, 2003.

Objections to the Specification

The Examiner has objected to the Title of the invention. Applicants hereby submit a new title, as shown in the "Amendments to the Specification" section. Applicants request the Examiner to withdraw the objection.

Drawings

Applicants respectfully submit revised Figures 7A and 7B to better conform to the teachings of the application. The Examiner is requested to accept the new drawing sheet with revised Figures 7A and 7B thereon.

Claims

Claims 1-3 have been examined. Claims 4-13 have been added which are supported by at least Page 4, lines 6-7, Page 14, lines 1-9, Page 12, lines 3-8, and Page 18, lines 10-14. Hence, claims 1-13 are all the claims pending in the application.

Claim Rejections - 35 U.S.C. § 103

Claims 1-3 are rejected under 35 U.S.C. § 103(a) as being unpatentable over US Patent No. 6,359,643 to Visvanathan et al ("Visvanathan") in view of Miyazaki (US Patent Application Publication No. 2005/0231631). For at least the following reasons, Applicants respectfully traverse the rejections.

Claim 1

Applicants submit that claim 1 is patentable over the cited references. For example, claim 1 recites a digital camera comprising, among other things, search means for detecting a frame where a marking data is added, and still picture data recording means for recording a frame selected by a selection means as still picture data onto said recording medium. The Examiner admits that Visvanathan does not disclose the still picture data recording means and cites Miyazaki to overcome this deficiency. Specifically, the Examiner states that it would have been obvious to a skilled artisan at the time the invention was made to implement the storage system taught by Miyazaki in the camera of Visvanathan to capture an image at a desired time. Applicants respectfully submit to the Examiner that he is misapplying the teachings of the references.

As an initial matter, because Visvanathan and Miyazaki each have their individual methodologies for capturing data, the considerations of timing and selection are already accounted for. Therefore, the references do not teach their combination with each other.

For instance, Visvanathan is directed to a method and apparatus for signaling a still image capture during video capture using a push model mechanism (Visvanathan, Abstract).

When a switch provided by a digital camera is activated during digital video capture mode by a user to indicate that still image capture is desired, a start of video frame (SOVF) header belonging to a present frame or one just previous to or succeeding the present frame is modified (Visvanathan,, Column 2, lines 56-67). In the method disclosed by Visvanathan, the captured video frame data is sent to a host, such as a personal computer, and an interested application on the host reads the video data (including the SOVF headers), and based on the SOVF headers, processes the data (Visvanathan, Figure 3, Column 2, lines 34-45, and Columns 5-6, lines 58-14). Hence, Visvanathan is directed to a “system for a user to extract a still image from a *continuous stream of video*” (Visvanathan, Column 2, line 26-27, emphasis added).

Miyazaki discloses an image pickup apparatus for producing a desired frame of image signals using a continuous shoot mode of the digital camera. Miyazaki is merely directed to a still image capturing digital camera using the continuous shooting mode operation to capture frames for a predetermined period of time based on a specific selection (mode dial 20) made by the user when operating in the continuous shooting mode (Miyazaki, Abstract, Figure 1). For example, if a “Pre” mode is selected on the mode dial 20, a predetermined number of pictures before the “t=0” (desired still image capture time) state are also recorded by the camera 10, and similarly, when a “Post” state is selected, a predetermined number of pictures after the “t=0” state are also recorded (Miyazaki, Page 3, paragraphs [0045]).

However, during this predetermined period when still images are being recorded by the camera 10, Miyazaki discloses that the predetermined number of latest frames of image data generated by the controller 38 of camera 10 are written to memory 24, and the oldest present frames in the memory are sequentially deleted at the same time, and thus, the image data existing

in the main memory 24 of the camera is cyclically updated (Miyazaki, Figures 1 and 2, and Page 6, paragraph [0070]).

The storage system of Miyazaki described above deletes the oldest frames to replace them with a latest captured frame, whereas Visvanathan teaches a method in which a user can extract an image from a continuous stream of video which is transmitted to a host (PC). If the storage system of Miyazaki was implemented in the camera of Visvanathan, as the Examiner asserts, the camera of Visvanathan would then only store the predetermined number of latest frames, and delete the oldest frames. Since Visvanathan is directed to “a system for a user to extract a still image from a *continuous stream of video*” (Visvanathan, Column 2, line 26-27, emphasis added) as discussed above, the method disclosed by Visvanathan is not compatible with the image pickup system of Miyazaki. Therefore, Applicants respectfully submit that it would not have been obvious to a skilled artisan to implement the storage system of Miyazaki into the camera of Visvanathan as the combined references would result in Visvanathan’s camera to store images only for a predetermined period of time which is contrary to Visvanathan’s teachings as discussed above.

Moreover, Visvanathan states that the image processing carried out on the host/PC side of the image processing system:

“does not require complex functionality of the application to otherwise sense a push model still image *nor does it need complex hardware implementation (by way of interrupt pipes on USB) to signal a still image when the button is pressed*” (Visvanathan, Column 3, lines 22-27, emphasis added).

On the other hand, Miyazaki's disclosed image pickup apparatus for producing a desired frame of image signals using a continuous shoot mode of the digital camera is heavily dependent on interrupt processing (Miyazaki, Figures 5 and 6, Page 6, paragraph [0067]). Miyazaki discloses that, when a release button 22 of the camera 10 is pressed in a continuous shooting mode (Figure 4, step 406), after some preliminary adjustment steps, a controller 38 sets an interval in the timer 58 and then starts the timer 58 (Miyazaki, Figures 1, 2, and 4, Page 5, paragraph [0065], and Page 6, paragraph [0067]). Thereafter, Figure 5 describes a case when the mode dial 22 of the camera is set to the "Pre" continuous shooting mode where "the controller 38 validates the acceptance of an interrupt due to the timing signal to be output from the timer 58 and accepts the interrupt when it occurs" (Miyazaki, Figure 5, step 500, paragraph [0067]).

As discussed above, Visvanathan's method discloses that the motion image data (video) is continuously captured. If a still image is desired while capturing the video, a SOVF header of the desired frame is indicated as a desired still image from the video image data. Further, if an application 210 on a host 200, while reading the continuous stream of video, detects a still image flag in the SVOF header of a frame, outputs the frame as a still image in a separate window. This allows Visvanathan's method to avoid the interrupt driven approach of Miyazaki. Applicants submit that these distinguishing features with respect to the interrupts between Visvanathan and Miyazaki would not make it obvious to one of ordinary skill in the art to implement the storage system of Miyazaki in the camera of Visvanathan.

Furthermore, the Examiner contends that to implement the combined system of Visvanathan and Miyazaki, it *would be inherently* necessary to provide a search means in the

camera of Visvanathan to allow a user to select from a predetermined number of frames marked as still images (Office Action at Page 3, emphasis added).

"In relying upon the theory of inherency, the examiner must provide a basis in fact and/or technical reasoning to reasonably support the determination that the allegedly inherent characteristic necessarily flows from the teachings of the applied prior art." *Ex parte Levy*, 17 USPQ2d 1461, 1464 (Bd. Pat. App. & Inter. 1990). See MPEP §2112.IV (emphasis in original).

Here, the combined references of Visvanathan and Miyazaki asserted by the Examiner, as discussed previously, are not compatible and hence, it would not be obvious to a person skilled in the art to implement the storage system of Miyazaki into the method of Visvanathan. Therefore, the alleged inherent search means do not flow from the teachings of the applied prior art.

Claim 1 further recites that the digital camera comprises a motion picture decompression means for decompressing the frame detected by the search means, and a predetermined number of frames in the neighborhood of the frame each time the search means detects a frame with said marking data added. The Examiner takes Official Notice for the use of the decompression means; the Examiner alleges that the use of a decompression means is known to reduce the amount of data to be stored. However, Applicants respectfully submit that Miyazaki, on Page 6 and paragraphs [0073]-[0074], discloses that only after an operator of Miyazaki's camera selects a desired image among the images displayed on the LCD display 26 of the camera (Figure 5, steps 506 and 508), "the controller 38 causes the image data corresponding to the picture selected by the operator to be read out of the main memory 24 and input to the compression/expansion

circuit 52" (Miyazaki, Figure 2 and Figure 5). Accordingly, compression or expansion is performed only on the data of the individual image selected by the operator in Miyazaki and thus, not carried out on any of the other pictures displayed on the LCD 26. Moreover, assuming *arguendo* that utilizing a decompression means is well known in the art to reduce the amount of data storage, the operation of Miyazaki, as discussed above, does not disclose or suggest the motion decompression means as stated in claim 1.

In light of the discussion above, Applicants respectfully submit that the combination of Visvanathan and Miyazaki is improper, and would request the Examiner to withdraw the 35 U.S.C. § 103 rejection.

Claims 2 and 3

Since claims 2 and 3 are depend upon independent claim 1, and since the rejection of claim 1 has been shown to be improper as shown above, Applicants submit that claims 2 and 3 are patentable at least by virtue of their dependency.

New Claims

In order to provide more varied protection, new claims 4-13 have been added, which are patentable at least by virtue of their dependency.

Conclusion

In view of the above, reconsideration and allowance of this application are now believed to be in order, and such actions are hereby solicited. If any points remain in issue which the Examiner feels may be best resolved through a personal or telephone interview, the Examiner is kindly requested to contact the undersigned at the telephone number listed below.

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Respectfully submitted,



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